Follow-up shows no adverse outcomes of CNEP in neonates

Susan Mayor *London*

Long term follow-up of a controversial trial of continuous negative extrathoracic pressure (CNEP) in newborn babies has shown no adverse outcomes, results published in the *Lancet* this week show (2006;367:1080-5). The trial had resulted in an inquiry and prolonged suspension of the lead investigators.

The original study, carried out in the early 1990s, randomised newborn infants with respiratory distress syndrome to continuous negative extrathoracic pressure (pressure applied to the child's chest to help breathing) or standard treatment with supplemental oxygen or positive pressure ventilation, delivering pressurised air to the lungs. At the time, there was concern that positive pressure ventilation via an intratracheal tube might contribute to the high prevalence of chronic lung disease occurring in these children.

Initial results showed that babies given CNEP improved in overall composite illness score, which was the primary outcome of the study. They needed to be given oxygen for fewer days and developed less chronic lung disease than babies given conventional oxygen treatment. Mortality and the prevalence of abnormal brain scans increased non-significantly, however (*Pediatrics* 1996;98:1154-60).

When the results were published, some of the parents whose children had taken part in the study raised concerns, leading to severe criticism of the study by the media and a series of inquiries into the trial. Members of the research team, including David Southall, who was a consultant paediatrician at the North Staffordshire Hospital Centre, Stoke-on-Trent, were suspended after allegations about consent procedures—which were found to be without foundation in 2001 (*BMJ* 2001;323:885).

In an inquiry commissioned by the Department of Health and published in 2000, Rod Griffiths, who was regional director of public health at the University of Birmingham at the time, called for a review of research governance and long term follow-up of the neonates included in the study (*BMJ* 2000;320:1291).

Results from the recommended long term follow-up, which assessed 133 of the 205 survivors from the original trial assessed at 9-15 years of age, have shown no evidence of poorer outcome after neonatal CNEP. The primary outcome of death or severe disability was equally distributed between the two treatment options (odds ratio for the CNEP group 1.0; 95% confidence interval 0.4 to 2.4). Full IQ did not differ between the two groups, but mean performance IQ was 6.8 (1.5 to 12.1) points higher in the CNEP group than in the conventionally treated group. Results of neuropsychological testing were similar, with scores on language production and visuospatial skills significantly higher in the CNEP group (*Lancet* 2006;367:1080-5).

In a commentary in the *Lancet*, David Southall and Martin Samuels, two of the researchers from the original trial—who both still work at North Staffordshire Hospital Centre, Stoke-on-Trent—welcomed the absence of harm in the long term neurodevelopment of the preterm infants treated with CNEP.

Also commenting on the long term follow-up results, Professor Griffiths, now the president of the Faculty of Public Health, said, "We now know that despite what seemed to be an increase in issues related to brain damage when the original trial reported, the longer term study shows that CNEP might, if anything, be kinder on the brain. The paediatric community now has to decide whether CNEP has a place in the care of these babies." (See Personal View on bmj.com.)

Report of a Review of the Research Framework in North Staffordshire Hospital NHS Trust is available at www.dh.gov.uk.

Scientists find new disease: motivational deficiency disorder

Ray Moynihan *Sydney*

Extreme laziness may have a medical basis, say a group of high profile Australian scientists, describing a new condition called motivational deficiency disorder (MoDeD).

The condition is claimed to affect up to one in five Australians and is characterised by overwhelming and debilitating apathy. Neuroscientists at the University of Newcastle in Australia say that in severe cases motivational deficiency disorder can be fatal, because the condition reduces the motivation to breathe.

Neurologist Leth Argos is part of the team that has identified the disorder, which can be diagnosed using a combination of positron emission tomography and low scores on a motivation rating scale, previously validated in elite athletes. "This disorder is poorly understood," Professor Argos told the *BMJ*. "It is underdiagnosed and undertreated."

Professor Argos is an adviser to a small Australian biotechnology company, Healthtec, which is currently concluding phase II trials of indolebant, a cannabinoid CB1 receptor antagonist. Although still unpublished, the preliminary results from the company's phase II studies are promising, according to Professor Argos: "Indolebant is effective and well tolerated. One young man who could not leave his sofa is now working as an investment adviser in Sydney."

David Henry, a clinical pharmacologist at the University of Newcastle and long time critic of pharmaceutical marketing strategies, says that although he appreciates that some people with severe motivational deficiency disorder may need treatment, he is concerned that the prevalence estimates of one in five are inflated and that ordinary laziness is being medicalised. "Indolebant may bring some relief to those with a debilitating form of MoDeD, but common laziness is not a disease. People have an absolute right to just sit there."

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"People have an absolute right to just sit there"

Professor Henry has organised a conference at Newcastle University to highlight what he describes as "disease mongering," which will take place 11-13 April 2006 (www.diseasemongering.org). The conference will produce a consensus statement to be published in *PLoS Medicine*, which will launch its theme issue on disease mongering this week.

A study of the economic impacts of motivational deficiency disorder estimates the condition may be costing the Australian economy $A2.4bn (£970m; €1.4bn; $1.7bn) a year in lost productivity. This has prompted calls from industry and advocacy groups for a fast tracking of the regulatory assessment of indolebant in Australia and worldwide. □